

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kevin Buchanan )  
Serial No.: 10/647,083 ) Attorneys' Ref. P214293  
Filing Date: 8/21/2003 ) Art Unit: 3753  
Title: GATE SYSTEMS AND METHODS )  
FOR REGULATING TIDAL FLOWS )

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with 37 CFR §1.56, the Applicant respectfully submits this Information Disclosure Statement to call to the attention of the Examiner the references listed on the attached Forms PTO/SB/08A and PTO/SB/08B for consideration in the prosecution of the above-referenced application for U.S. patent. Copies of these references are attached hereto for the Examiner's convenience. Citation of a reference in this Information Disclosure Statement is not an admission that the reference is prior art to the present invention.

It is believed that no fee is due at this time to maintain the application in full force and effect, however if any such fee is due please charge this to Deposit Account No. 502099.

**REMARKS**

U.S. Patent No. 4,877,352 to Tuttle et al. discloses a system for controlling an upstream water level.

U.S. Patent No. 4,600,222 to Appling discloses a coupling system for attaching polymer pipes and conduits to metal bodies such as holding tanks.

U.S. Patent No. 3,974,654 to Mirto, Jr. discloses a tide gate system for controlling flow of water from a conduit.

U.S. Patent No. 4,091,624 to Steinke discloses a fluid control valve mounted on the end of a conduit connecting two separate bodies of water.

U.S. Patent No. 6,485,231 to Montgomery et al. discloses a flood gate adapted to control flooding within enclosed spaces to find a building foundation.

U.S. Patent No. 6,478,954 to Turner, Jr. et al. discloses a system for catching floating debris within a conduit having an overflow grate position to swing downstream under certain conditions.

U.S. Patent No. 5,829,917 to Maudal discloses a system for interconnecting a harbor with open water. This system contains a pipe extending between the two bodies of water and a check valve on the end of the pipe in the open water.

U.S. Patent No. 5,755,257 to Feucht et al. discloses a retention gate adapted to be arranged between a storage space and a receiving river. The retention gate protects the storage basin from flood waters from the receiving river area.

U.S. Patent No. 5,462,075 to Persson discloses a system for controlling flow of fluid through sewage pipes.

U.S. Patent No. 4,503,881 to Vecchio discloses a valve system for sewer that closes when a water level exceeds a certain amount.

U.S. Patent No. 3,733,830 to Jacobs discloses a title flow system in which the depth of water on a discharge side of a valve is controlled by title action. The system flushes waterways to prevent stagnation of water and accumulation of debris.

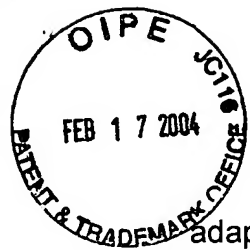
U.S. Patent No. 3,543,521 to J. Aubert discloses a valve system arranged on the upstream course of a water slope channel.

U.S. Patent No. 3,006,150 to C. H. Bannister discloses a sluice device configured to maintain water within a reservoir at a maximum height.

U.S. Patent No. 1,634,697 to K. J. Thorsby discloses a flood gate for controlling the flow of water and conduits used in irrigation and drainage works.

U.S. Patent No. 1,276,053 to W. Gottschalk discloses a drainage gate that automatically opens to allow water to flow out of ditches and closes to prevent backwater from rises tides or floods to return to the ditches.

U.S. Patent No. 401,788 to W. T. McCloskery discloses a water gate that is closed at low and high water by the level of water.



U.S. Patent No. 4,324,506 to Steinke discloses a self-regulating control valve adapted to be arranged on a conduit connecting an open body of water with a protected body of water.

"Tide Gate Modifications for Fish Passage and Water Quality Enhancement" by J. Charland, dated August 27, 1998. This document contains a survey of a number of tide gates appropriate for allowing fish passage and water quality enhancement.

"SRT (Self-Regulating Tide gate) for Tidal Wetlands Preservation & Restoration" by Waterman Industries, Inc., dated November, 2002. This catalog describes a regulating tide gate adapted to be attached a culvert on the tidal side of a causeway or dike.

Drawing by Waterman Industries, Inc., dated December, 2002. This drawing describes a self-regulating tide gate.

### CONCLUSION

The Applicant respectfully submits that these references, taken alone or in combination, neither anticipate nor render obvious the present invention. Consideration of the foregoing in relation to the pending application is respectfully requested. If there is any matter which could be expedited by consultation with the Applicant's attorney, such would be welcome. The Applicant's attorney can normally be reached at the telephone number below.

Signed at Bellingham, County of Whatcom, State of Washington, this 13<sup>th</sup> day of February, 2004.

Respectfully submitted,

KEVIN BUCHANAN et al.

By Michael R. Schacht

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#### CERTIFICATE OF MAILING 37 C.F.R. §1.8

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| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><small>(use as many sheets as necessary)</small> |      | <i>Complete if Known</i> |                |
|  |      | Application Number       | 10/647,083     |
|  |      | Filing Date              | 8/21/2003      |
|  |      | First Named Inventor     | Kevin Buchanan |
|  |      | Group Art Unit           | 3753           |
|  |      | Examiner Name            |                |
| Sheet 1  | of 1 | Attorney Docket Number   | P214293        |

| U.S. PATENT           |                          |                      |                           |  |  |  |
|-----------------------|--------------------------|----------------------|---------------------------|--|--|--|
| Examiner<br>Initials* | Cite<br>No. <sup>2</sup> | U.S. Patent Document |                           | Name of Patentee or Applicant<br>of Cited Document | Date of Publication of<br>Cited Document<br>MM-DD-YYYY | Pages, Columns, Lines,<br>Where Relevant<br>Passages or Relevant<br>Figures Appear |
|                       |                          | Number               | Kind<br>Code <sup>2</sup> |  |  |  |
|                       |                          | 4,877,352            |                           | Tuttle et al.                                      | 10/31/1989   |  |
|                       |                          | 4,600,222            |                           | Appling  | 07/15/1986   |  |
|                       |                          | 3,974,654            |                           | Mirto, Jr.   | 08/17/1976   |  |
|                       |                          | 4,091,624            |                           | Steinke  | 05/30/1978   |  |
|                       |                          | 6,485,231            |                           | Montgomery et al.                                  | 11/26/2002   |  |
|                       |                          | 6,478,954            |                           | Turner, Jr. et al.                                 | 11/12/2002   |  |
|                       |                          | 5,829,917            |                           | Maudal   | 11/3/1998  |  |
|                       |                          | 5,755,257            |                           | Feucht et al.                                      | 05/26/1998   |  |
|                       |                          | 5,462,075            |                           | Persson  | 10/31/1995   |  |
|                       |                          | 4,503,881            |                           | Vecchio  | 03/12/1985   |  |
|                       |                          | 3,733,830            |                           | Jacobs   | 05/22/1973   |  |
|                       |                          | 3,543,521            |                           | J. Aubert  | 12/01/1970   |  |
|                       |                          | 3,006,150            |                           | C.H. Bannister                                     | 10/31/1961   |  |
|                       |                          | 1,634,697            |                           | K.J. Thorsby                                       | 07/05/1927   |  |
|                       |                          | 1,276,053            |                           | W. Gottschalk                                      | 08/20/1918   |  |
|                       |                          | 401,788              |                           | W.T. McCloskey                                     | 04/23/1889   |  |
|                       |                          | 4,324,506            |                           | Steinke  | 04/13/1982   |  |
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| FOREIGN PATENT        |                          |                         |        |                                      |  |  |   |                |
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| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Foreign Patent Document |        |                                      | Name of Patentee or<br>Applicant of Cited Document | Date of Publication of<br>Cited Document<br>MM-DD-YYYY | Pages, Columns, Lines,<br>Where Relevant<br>Passages or Relevant<br>Figures | T <sup>6</sup> |
|                       |                          | Office <sup>3</sup>     | Number | Kind Code <sup>5</sup><br>(if known) |  |  |   |                |
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| Examiner<br>Signature | Date<br>Considered |
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<sup>1</sup> Unique citation designation number <sup>2</sup> See attached Kinds of U.S. Patent Documents <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3) <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

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| Application Number | 10/647.083 |
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| Filing Date | 8/21/2003 |
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|----------------------|----------------|
| First Named Inventor | Kevin Buchanan |
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| Group Art Unit | 3753 |
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Examiner Name

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| Attorney Docket Number | P214293 |
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## OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

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